

REMARKS

Claims 1, 40, 44, 46, 47 and 62 have been amended and Claims 66-68 have been added. No new matter has been added by these amendments. The foregoing amendments and the following remarks are responsive to the January 7, 2008 non-final *Office Action*. Claims 1-4, 7-9, 28-38, 40-44, and 46-65 were considered and rejected by the Examiner.

In paragraph 5 of the Office Action, the Examiner rejected Claims 1-4, 7-9, 28-38 and 40-65 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,830,776 to Carlson et al. ("Carlson") in view of U.S. Patent No. 4,439,548 to Weisman. In particular, the Examiner cited Weisman as teaching that "the second polyol is between about 5 wt% and about 20 wt% based on the total weight of the first and second polyols being 100 wt% (col. 6, lines 27-53). Applicant notes that each of Independent Claims 1, 44 and 62, as amended, contains this limitation.

Weisman, in relevant part, states the following:

In a preferred embodiment of the invention, a polyol blend is employed comprising a polyether triol, having a molecular weight range of about 1,000-8,000 and a hydroxyl number range of about 20-175, and a diol having a molecular weight range of about 60-3,000 and a hydroxyl number range of about 50-200. The weight ratio of polyether triol to diol, according to this preferred embodiment, can range from about 1:8 to about 6:8. For the reasons set forth herein, the pending claims are patentable over Carlson in view of Weisman.

Applicant respectfully submits that Weisman fails to teach "the second polyol is between about 5 wt% and about 20 wt% based on the total weight of the first and second polyols being 100 wt%" because Weisman does not specify which polyol has the lower hydroxyl number. Further, even if Weisman specified which polyol has the lower hydroxyl number, Weisman fails to teach the criticality of "the second polyol is between about 5 wt% and about 20 wt% based on the total weight of the first and second polyols being 100 wt%." Thus, Applicant submits that the claims of the present application are not obvious over the prior art, including the combination of Carlson and Weisman.

Weisman Fails To Teach “The Second Polyol Is Between About 5 Wt% And About 20 Wt% Based On The Total Weight Of The First And Second Polyols Being 100 Wt%”

Weisman discloses a broad hydroxyl number range of both polyols that may be used and that the polyols may be used in broad ratios together. However, Weisman does not disclose whether the triol or the diol has the higher hydroxyl number, as the hydroxyl numbers of these components overlap in the disclosure (20-175 (triol) v. 50-200 (diol)). That is, Weisman teaches that the triol could have a higher hydroxyl number and that the triol could have a lower hydroxyl number. Therefore, a person of ordinary skill in the art could read Weisman as teaching away from the pending claims in this application. In addition, the weight ratio of the triol to the diol is disclosed as being between 1:8 to about 6:8, which is calculated to be about 11 weight % to about 43 weight % of triol to diol. In contrast, the range in the pending claims here is between about 5 wt % and about 20 wt %.

Weisman Fails To Teach The Criticality Of “The Second Polyol Is Between About 5 Wt% And About 20 Wt% Based On The Total Weight Of The First And Second Polyols Being 100 Wt%”

Even if Weisman taught which polyol had a lower hydroxyl number, the claims of the present application are still patentable over the combination of Carlson and Weisman. Because Weisman simply contains a generic description of a broad range and fails to teach the criticality and unexpected results of “the second polyol is between about 5 wt% and about 20 wt% based on the total weight of the first and second polyols being 100 wt%,” the present application is patentable over the prior art, including the combination of Carlson and Weisman.

With respect to the obviousness of a claimed range, a *prima facie* case of obviousness exists when the claimed range overlaps the range disclosed by the prior art. *In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003). However, patent applicants may overcome the *prima facie* case of obviousness by showing that the claimed range is critical over the prior art range. *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1322 (Fed. Cir. 2004).

Applicant herewith submits a declaration from the inventor, Wade Brown, which demonstrates that Applicant’s claimed range of about 5 wt % to about 20 wt % of the lower hydroxyl number polyol, relative to the total weight of the two polyols, is critical and shows

unexpected results over the generic disclosure of Weisman. Applicant has discovered that this range is critical and shows unexpected results over the generic disclosure of Weisman in at least one aspect. Applicant has tested product samples made by reacting an isocyanate with two polyols, one polyol having a hydroxyl number lower than the second polyol, in the presence of a very large amount of filler. Applicant has found that the product samples containing between about 5 wt % and about 20 wt% of the lower hydroxyl number polyol, based on the total weight of the two polyols being 100 wt%, show improved flexural strength when compare to product samples outside that range. Because these products show the criticality of the range listed in the application and unexpected benefits over Weisman, Applicant believes that independent claims 1, 44, and 62, are patentable over the prior art, including the combination of Carlson and Weisman.

Accordingly, Claims 1, 44 and 62 are patentable over the combination of Carlson and Weisman. In addition, Claims 2-4, 7-9, 28-38, 40-43, 46-61, and 63-68, which are dependent on Claims 1, 44, or 62, are patentable at least for the reasons stated above, as well as for other novel and nonobvious features recited therein.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

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Co-Pending Applications of Assignee

Applicant wishes to draw the Examiner's attention to the following co-pending applications of the present application's assignee.

| Serial Number | Title | Filed |
|---------------|---|-------------------|
| 11/317,494 | FILLED POLYMER COMPOSITE AND SYNTHETIC BUILDING MATERIAL COMPOSITIONS | December 22, 2005 |
| 11/317,958 | FILLED POLYMER COMPOSITE AND SYNTHETIC BUILDING MATERIAL COMPOSITIONS | December 22, 2005 |
| 11/407,416 | FILLED POLYMER COMPOSITE AND SYNTHETIC BUILDING MATERIAL COMPOSITIONS | April 20, 2006 |
| 11/407,661 | FILLED POLYMER COMPOSITE AND SYNTHETIC BUILDING MATERIAL COMPOSITIONS | April 20, 2006 |
| 11/841,901 | FILLED POLYMER COMPOSITE AND SYNTHETIC BUILDING MATERIAL COMPOSITIONS | August 20, 2007 |

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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